LATE REPORT FOR SWAN ISLAND, WEST INDIES

TABLE 1.—*Mean free-air barometric pressure in millibars, temperature in degrees centigrade, and relative humidity in percent, obtained by radiosondes during October 1945*

STATIONS AND ELEVATIONS IN METERS ABOVE SEA LEVEL

Altitude (meters) m. s. l.	Swan Island, West Indies (10 m.)				Altitude (meters) m. s. l.	Swan Island, West Indies (10 m.)			
	Number of observations	Pressure	Temperature	Relative humidity		Number of observations	Pressure	Temperature	Relative humidity
Surface	28	1,011	25.4	85	7,000	26	432	−13.8	52
500	28	956	23.0	81	8,000	26	378	−20.3	
1,000	28	903	20.0	78	9,000	26	329	−27.6	
1,500	28	853	17.2	75	10,000	25	286	−35.2	
2,000	28	804	14.5	72	11,000	24	247	−43.2	
2,500	28	757	11.8	68	12,000	24	212	−51.5	
3,000	28	714	9.2	66	13,000	22	181	−59.8	
4,000	28	632	3.6	61	14,000	21	154	−67.7	
5,000	27	558	−2.1	52	15,000	13	130	−74.2	
6,000	27	491	−7.8	57	16,000	5	109	−78.0	

CORRECTIONS

Data for October 1945, Table 2, page 170, should read:

	Alt. (m.)	*Obs.*	*Dir.*	*Velocity.*
San Antonio, Tex	4,000	19	281	5.8
San Antonio, Tex	5,000	15	278	8.2

TABLE 2.—*Free-air resultant winds based on pilot balloon observations made near 5 p. m., E. S. T. (2200 G. C. T.) during November 1945. Directions given in degrees from north (N=360°, E=90°, S=180°, W=270°). Velocities in meters per second*

Altitude (meters) m. s. l.	Abilene, Tex. (534 m.)			Albuquerque, N. Mex. (1,630 m.)			Atlanta, Ga. (299 m.)			Billings, Mont. (1,095 m.)			Bismarck, N. Dak. (512 m.)			Boise, Idaho (868 m.)			Brownsville, Tex. (7 m.)			Buffalo, N. Y. (220 m.)			Burlington, Vt. (100 m.)			Charleston, S. C. (16 m.)			Cincinnati, Ohio (150 m.)			Denver, Colo. (1,627 m.)			El Paso, Tex. (1,198 m.)		
	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity
Surface	30	195	2.5	30	264	2.0	27	265	2.1	28	276	2.8	27	306	2.6	29	85	1.5	30	140	4.9	28	241	3.0	26	182	1.1	29	258	0.7	29	238	2.6	30	294	2.8	30	257	2.6
500							27	267	2.6										30	143	6.5	28	234	5.2	26	208	4.1	29	284	2.1	29	231	4.3						
1,000	30	223	3.9				26	286	3.0				27	295	4.0	29	123	1.7	29	158	5.4	20	233	7.7	24	245	6.0	28	287	4.1	23	242	7.0						
1,500	29	236	5.6				23	274	4.9	28	262	6.9	23	290	6.3	29	208	2.9	26	177	5.1	13	246	9.3	18	262	8.2	27	294	4.3	21	248	10.7				30	257	3.4
2,000	27	249	8.6	30	259	3.2	23	278	7.4	27	270	9.2	22	287	9.1	26	251	5.3	21	206	3.2				14	268	10.8	27	293	6.1	18	259	11.5	30	293	3.5	30	256	4.7
2,500	27	258	10.8	30	273	5.1	21	285	8.2	26	277	9.5	22	288	10.3	22	254	7.8	19	237	1.7				10	275	14.9	27	286	6.6	16	260	11.8	30	286	5.2	30	258	6.7
3,000	26	265	12.7	30	280	8.2	18	290	8.6	24	276	11.3	21	290	11.6	21	257	9.4	17	281	2.0				10	279	14.6	26	283	8.2	12	269	13.1	29	275	6.8	30	257	9.3
4,000	25	274	16.3	30	278	14.6	11	298	10.7	20	287	15.0	17	297	12.4	12	261	11.2	16	280	4.7							26	282	10.8				29	285	9.6	29	267	14.1
5,000	25	274	17.8	30	275	18.6				16	282	19.7	14	296	15.4				15	255	5.9							22	285	12.4				28	285	15.0	28	270	15.5
6,000	22	277	18.4	27	273	20.8				15	287	19.0	13	286	20.9				14	269	8.3							18	276	16.6				24	285	19.9	19	265	13.9
8,000	16	272	19.9	22	271	23.3													11	265	13.6							13	289	19.6				22	284	24.2			
10,000	13	272	26.9	14	270	23.7																												11	279	23.9			

Altitude (meters) m. s. l.	Ely, Nev. (1,910 m.)			Grand Junction, Colo. (1,413 m.)			Greensboro, N. C. (271 m.)			Havre, Mont. (767 m.)			Jacksonville, Fla. (16 m.)			Joliet, Ill. (178 m.)			Las Vegas, Nev. (573 m.)			Little Rock, Ark. (88 m.)			Medford, Oreg. (416 m.)			Miami, Fla. (12 m.)			Mobile, Ala. (66 m.)			Nashville, Tenn. (194 m.)			New York, N. Y. (15 m.)		
	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity
Surface	29	203	1.4	30	292	2.2	26	245	1.3	28	280	1.8	30	54	1.3	26	222	4.3	30	58	0.6	28	202	2.0	26	215	0.7	30	54	2.5	30	158	0.4	25	238	2.5	25	311	2.6
500							26	249	2.9				30	20	0.7	26	217	5.8				28	220	4.2	26	196	1.0	30	54	5.1	30	228	1.8	25	228	4.5	25	283	4.6
1,000							25	244	5.7	28	267	4.1	30	291	0.6	23	228	9.6	30	117	1.1	26	240	5.6	26	185	2.3	29	48	4.9	28	242	1.6	23	230	6.3	24	271	6.8
1,500				30	292	2.4	22	244	4.6	26	265	9.0	29	272	2.5	19	254	9.2	30	235	0.9	25	260	7.8	25	215	4.6	28	37	3.6	26	296	2.9	19	244	8.9	23	276	9.4
2,000	29	201	2.1	30	264	3.0	22	264	6.0	25	273	9.5	28	273	4.4	14	270	9.9	29	249	3.4	23	279	9.4	16	234	7.3	26	346	2.8	25	295	3.7	18	247	9.1	16	275	10.3
2,500	29	231	4.2	30	242	4.5	21	273	6.7	23	271	10.0	26	284	4.8	13	270	12.4	30	259	4.6	20	281	13.1	13	241	7.0	25	327	2.4	21	308	4.6	18	256	9.5	13	274	1.5
3,000	28	246	5.9	29	241	7.0	19	266	6.2	21	276	12.6	26	294	6.2	13	274	14.4	29	270	5.9	18	283	14.7	11	254	6.5	22	298	4.2	18	282	4.4	16	276	10.2			
4,000	22	268	10.5	26	265	10.0	18	278	8.1	16	275	14.2	22	284	10.0				28	270	9.9	15	301	16.0				16	282	6.1	13	290	7.4	14	281	15.6			
5,000	19	274	14.8	22	277	15.0	15	275	10.9				20	288	14.4				26	274	12.8	12	311	21.0				15	275	8.3				13	288	18.7			
6,000	18	270	18.0	20	282	18.3	15	273	14.7				16	279	16.6				23	269	14.3	11	304	25.0				15	274	9.7				10	282	20.3			
8,000	14	275	23.5	14	286	23.6							13	276	20.2				15	276	17.6							11	279	15.0									
10,000	11	302	18.2																12	285	21.1																		

Altitude (meters) m. s. l.	Oakland, Calif. (8 m.)			Oklahoma City, Okla. (396 m.)			Omaha, Nebr. (306 m.)			Phoenix, Ariz. (338 m.)			Rapid City, S. Dak. (982 m.)			St. Louis, Mo. (181 m.)			St. Paul, Minn. (225 m.)			San Antonio, Tex. (240 m.)			San Diego, Calif. (15 m.)			Sault Ste. Marie, Mich. (225 m.)			Seattle, Wash. (116 m.)			Spokane, Wash. (603 m.)			Washington, D. C. (24 m.)		
	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity
Surface	28	254	2.5	29	224	2.5	29	268	2.8	30	262	0.9	29	342	3.2	29	219	2.2	26	252	0.9	29	173	2.3	28	284	4.0	23	244	1.2	28	195	3.8	29	201	2.8	26	284	1.6
500	28	274	2.6	29	222	2.9	29	264	3.2	30	237	1.1				29	227	4.3	26	218	1.5	29	172	2.5	28	292	3.5	23	242	1.0	28	203	6.5				26	254	3.1
1,000	23	289	2.9	29	226	4.2	27	268	4.7	30	196	1.1	29	340	3.4	27	251	6.6	20	248	4.8	28	187	4.2	26	287	1.1	19	243	2.7	24	214	9.4	29	210	5.2	26	256	5.6
1,500	22	289	2.9	29	245	6.7	26	267	6.3	30	209	1.1	29	314	5.6	26	264	8.3	14	260	9.8	27	208	4.0	25	20	0.3	14	279	5.4	18	214	12.8	23	224	7.9	26	249	8.5
2,000	18	284	3.8	28	256	9.0	25	275	10.0	30	246	1.0	27	295	7.1	23	283	10.8	14	266	12.3	25	235	4.5	22	5	1.4	10	278	8.6	14	219	13.0	16	230	8.5	20	264	10.4
2,500	18	281	5.3	28	264	12.6	25	284	12.6	30	270	2.7	25	283	9.2	20	286	10.6	11	272	14.6	21	261	6.8	22	326	2.1				10	215	11.1	13	238	9.7	20	273	11.3
3,000	18	279	7.0	27	270	13.8	25	281	13.8	30	270	5.2	24	280	11.5	17	287	13.4	10	275	16.6	20	266	8.3	22	303	3.9										20	273	12.0
4,000	18	280	10.3	25	273	16.9	20	291	16.7	30	262	9.1	21	285	13.1	16	287	17.5				19	267	11.4	20	280	7.1										17	266	12.7
5,000	15	285	11.1	24	272	21.0	19	286	17.3	29	263	12.8	19	289	16.9	15	280	21.4				19	269	13.1	20	270	9.3										13	276	14.8
6,000	13	292	12.5	23	274	24.6	15	282	20.9	29	269	14.7	17	290	22.1	14	279	24.0				18	271	13.5	20	267	11.2										11	284	18.1
8,000				13	279	26.3	11	285	21.3	19	270	15.1				10	265	34.8							20	268	15.2												
10,000										18	268	18.1													18	264	18.8												
12,000										15	273	17.5													12	262	26.0												

TABLE 3.—*Maximum free-air wind velocities (m. p. s.) for different sections of the United States based on pilot balloon observations during November 1945*

Section	Surface to 2,500 meters (m. s. l.)					Above 2,500 to 5,000 meters (m. s. l.)					Above 5,000 meters (m. s. l.)				
	Maximum velocity	Direction	Altitude (m.) m.s.l.	Date	Station	Maximum velocity	Direction	Altitude (m.) m.s.l.	Date	Station	Maximum velocity	Direction	Altitude (m.) m.s.l.	Date	Station
Northeast [1]	44.4	SW.	1,427	7	Columbus, Ohio	48.3	NW.	3,607	16	Portland, Maine	73.0	WNW.	14,664	6	Albany, N. Y.
East-Central [2]	42.2	N.	2,458	15	Chattanooga, Tenn.	46.5	W.	4,494	22	Nashville, Tenn.	80.0	SW.	9,479	3	Nashville, Tenn.
Southeast [3]	40.0	NNW.	2,500	15	Atlanta, Ga.	45.6	NW.	4,421	15	Charleston, S. C.	54.6	W.	12,201	20	Jacksonville, Fla.
North-Central [4]	43.6	WNW.	2,112	4	Williston, N. Dak.	50.6	NW.	4,053	24	Green Bay, Wis.	76.1	WSW.	7,867	9	Marquette, Mich.
Central [5]	41.9	SW.	1,225	16	Kansas City, Mo.	53.2	W.	4,443	22	Goodland, Kans.	74.4	W.	8,488	12	Goodland, Kans.
South-Central [6]	42.3	WNW.	1,736	4	Tulsa, Okla.	59.6	NW.	4,521	23	Texarkana, Ark.	100.0	WSW.	14,151	13	Big Spring, Tex.
Northwest [7]	50.3	W.	2,500	11	Glasgow, Mont.	53.5	W.	4,831	4	Missoula, Mont.	80.0	NNW.	10,645	21	Pocatello, Idaho.
West-Central [8]	38.1	WSW.	2,456	7	Pueblo, Colo.	50.6	NW.	4,177	26	Denver, Colo.	74.0	SW.	8,732	11	Denver, Colo.
Southwest [9]	33.4	NW.	2,500	12	Sandberg, Calif.	60.0	W.	5,000	8	El Paso, Tex.	104.0	W.	6,143	8	El Paso, Tex.

[1] Maine, Vermont, New Hampshire, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Pennsylvania, and northern Ohio.
[2] Delaware, Maryland, Virginia, West Virginia, southern Ohio, Kentucky, eastern Tennessee, and North Carolina.
[3] South Carolina, Georgia, Florida, and Alabama.
[4] Michigan, Wisconsin, Minnesota, North Dakota, and South Dakota.
[5] Indiana, Illinois, Iowa, Nebraska, Kansas, and Missouri.
[6] Mississippi, Arkansas, Louisiana, Oklahoma, Texas (except El Paso), and western Tennessee.
[7] Montana, Idaho, Washington, and Oregon.
[8] Wyoming, Colorado, Utah, northern Nevada, and northern California.
[9] Southern California, southern Nevada, Arizona, New Mexico, and extreme west Texas.

RIVER STAGES AND FLOODS FOR NOVEMBER 1945

By C. R. JORDAN

Precipitation during November was above normal from eastern Arkansas and Tennessee northeastward over the Ohio Valley, the Middle and North Atlantic States, and the western Lake region; the northern Great Basin; the Pacific Northwest; and Wyoming. Amounts were much above normal in a broad strip extending from Tennessee to New York and Wyoming. State averages for New York and Pennsylvania were the highest for November in over 20 years. Precipitation was light over the Great Plains and quite generally over the southern half of the country. Virtually no rain fell in Arizona and New Mexico.

Stream flow was dominantly above normal and was excessive over broad areas in the Northeastern States and in parts of California, Nevada, and Oregon. A few stations reported the greatest run-off of record for November. However, the flow was well distributed throughout the month and no serious flooding resulted. Light local flooding was reported in Indiana and eastern Texas but caused little or no damage. Small floods were reported in northern California, western Oregon, and southwestern Washington.

FLOOD STAGE REPORT FOR NOVEMBER 1945

[All dates in November unless otherwise indicated]

River and station	Flood stage	Above flood stages—dates		Crest [1]	
		From—	To—	Stage	Date
MISSISSIPPI SYSTEM					
Ohio Basin					
	Feet			*Feet*	
West Fork: Edwardsport, Ind.	12	21	23	12.8	22
WEST GULF OF MEXICO DRAINAGE					
East Fork: Rockwall, Tex.	10	11	12	10.5	12
PACIFIC SLOPE DRAINAGE					
Columbia Basin					
Coast Fork: Saginaw, Oreg.	9	19	19	9.0	19
McKenzie:					
Leaburg, Oreg.	12	27	28	13.8	27
Coburg, Oreg.	11	28	28	11.3	28
Marys: Philomath, Oreg.	20	27	27	20.2	27
Santiam: Jefferson, Oreg.	13	27	29	18.4	28
South Yamhill:					
Willamina, Oreg.	8	26	27	11.0	26–27
Whiteson, Oreg.	38	27	29	41.6	27
Tualatin: Dilley, Oreg.	12	27	27	12.4	27
Willamette:					
Harrisburg, Oreg.	12	19 28	20 30	13.2 14.2	19 28
Oregon City, Oreg.	12	30	30	12.3	30

[1] Provisional.